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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,177	07/16/2003	Scott L. Rhea	14264	3529

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EXAMINER

ROSENBERG, LAURA B

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p>Office Action Summary</p>	Application No. 10/621,177	Applicant(s) RHEA, SCOTT L.	
	Examiner Laura B Rosenberg	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/16/03; 12/10/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the movement of the horn contacts and the upper housing must be shown or the feature(s) canceled from the claim(s). Specifically, figures 3 and 5 show a compressed position of the steering wheel assembly, but they do not show any movement of the upper housing or the horn contacts that would indicate that these features move when compression occurs. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 7, 10, 32, 33, and 44 are objected to because of the following informalities:

“airbag housing” should be --upper housing-- (claim 7, line 2; claim 10, line 2);

“lower plate” should be --lower housing-- (claim 32, line 2; claim 44, line 2);

“a shingle” should be --the shingle-- (claim 33, line 6).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 8-20, 22-26, 28-38, 40-46, and 48-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Ibe et al. (6,639,160). Ibe et al. disclose a steering wheel (#10, 20) comprising:

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- Center portion (including center portion of #16) comprising a “casting” (including #16, 18) and a “shell” (including #16, 18)
- Outer rim (including #14)
- Airbag cover (including #40)
- Intermediate portion (including #82A, 82B) positioned between center portion and outer rim
- Intermediate portion comprises functional and decorative features (including #84, 86, 88, 90; best seen in figures 1, 2)
- Upper housing (including #26, 46, 48A, 48B, 50; best seen in figure 3) capable of being depressed from a normal to a compressed position by applying force to the cover (column 6, lines 6-11)
- No “gap” at interface between cover and intermediate portion when the upper housing is in the normal position (best seen in figure 6B)
- If the force is removed, upper housing will move from the compressed to the normal position (via bias of springs)
- Horn assembly (including #74) including springs (#72)
- Depressing the upper housing from the normal to the compressed position actuates the horn assembly (column 6, lines 6--11)
- Intermediate portion includes an overhanging portion (portion beneath slot #92)
- Cover comprises a “shingle” (portion on the left of #40 in figures 6A, 6B that contacts the intermediate portion)
- Cover includes a flex point (#42)

- Lower housing (including #52)
- Intermediate portion mounted to lower housing (at #62)
- Airbag (#36) and inflator (#30)

5. Claims 1, 4, 5, 8-14, 16-20, 22, 25, 26, 28-33, 37, 38, and 40-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Durrani (5,738,369). Durrani discloses a steering wheel (#18) comprising:

- Center portion (including #21) comprising a "casting" (including #21, 26) and a "shell" (including #21, 26)
- Outer rim (including #25)
- Airbag cover (#19)
- Intermediate portion (including #24) positioned between center portion and outer rim
- Upper housing (including #23) capable of being depressed from a normal to a compressed position by applying force (#F) to the cover
- No "gap" at interface (#30, 32) between cover and intermediate portion when the upper housing is in the normal position (best seen in figure 2)
- If the force is removed, upper housing will move from the compressed to the normal position (via bias of springs)
- Horn assembly (including #54, 56) including springs (#40)
- Depressing the upper housing from the normal to the compressed position actuates the horn assembly (column 3, lines 30-36)

- Intermediate portion includes an overhanging portion (portion including #30) constructed to overlap and fit tightly with the airbag cover (at #32)
- Cover comprises a “shingle” (portion near #32)
- Lower housing (including #21)
- Intermediate portion mounted to lower housing (best seen in figure 2)
- Airbag and inflator (#42)

6. Claims 1, 4-6, 33, and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al. (5,228,362). Chen et al. disclose a steering wheel (#10) comprising:

- Center portion (including #14)
- Outer rim (including #16)
- Airbag cover (#46)
- Intermediate portion (#50, 52) positioned between center portion and outer rim
- Upper housing (including #44, 48) capable of being depressed from a normal to a compressed position by applying force to the cover (best seen in figure 3)
- No “gap” at interface between cover (#46) and intermediate portion (#50, 52) when the upper housing is in the normal position (best seen in figure 2) or in the compressed position (best seen in figure 3)
- “Shingle” (#54 or #48)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ibe et al. (6,639,160). Ibe et al. do not specifically disclose a "gap" being produced at the interface between the cover (#40) and the intermediate portion (#82A, 82B) when the upper housing is depressed from the normal to the compressed position. However, due to the fixed connection between the intermediate portion (#82A, 82B) and the lower housing (#52), and the movement of the cover (#40) and the upper housing (#26, 46, 48A, 48B, 50) when a force acts on the cover, It would have been obvious to one skilled in the art at the time that the invention was made that a "gap" would be formed between the cover and the intermediate portion when the upper housing is depressed from the normal to the compressed position.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ibe et al. (6,639,160) in view of Anglsperger et al. (DE 19725684 C1). Ibe et al. do not disclose retention hanger(s) designed to engage a retaining wire. Anglsperger et al. teach a steering wheel (#10) comprising a center portion (best seen in figure 2), an outer rim (#11), an airbag cover (including #14), and retention hangers (#16) designed to engage a retaining wire (#19). It would have been obvious to one skilled in the art at the time

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that the invention was made to modify the steering wheel of Ibe et al. such that it comprised retention hangers designed to engage a retaining wire as claimed in view of the teachings of Anglsperger et al. so as to allow for a simple assembly of the airbag module onto the steering wheel, and to securely attach the air bag module to the steering wheel in a fixed position (Anglsperger et al.: English Abstract).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manabe, Sakurai et al., and Fujita each discloses a steering wheel comprising a center portion, rim, airbag cover, intermediate portion, and horn assembly, no gap being formed between the intermediate portion and the cover.

Kikuta et al., Schutz, and Kai et al. each disclose a steering wheel comprising a center portion, rim, airbag cover, intermediate portion, and horn assembly

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B Rosenberg whose telephone number is (703) 305-3135. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beginning April 7, 2005, Laura B Rosenberg can be reached at the new USPTO location at (571) 272-6674, and Paul Dickson can be reached at (571) 272-6669.



Laura B Rosenberg
Patent Examiner
Art Unit 3616

LBR



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